

Barrier Grouping 3

**Complex and Lengthy
Permitting Process;
and Limited Land Availability**

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**Complex and lengthy permitting process:
and limited land availability**

INTRODUCTION:

A large number of federal, state, and county agencies and authorities have jurisdiction and may grant or deny their approval and issue or withhold permits for a variety of projects in the State.

Affected agencies may disagree as to the requirements to be imposed on each applicant, hearings and data requirements may overlap or duplicate each other, and some agencies may prefer not to act until others take action first.

Barrier 3.a

Complex and lengthy permitting process: and limited land availability

DEFINITION:

Obtaining permits for a project can be very time consuming and costly. Dozens of different permits may be required, and these costs often represent a much greater proportion of total project costs for smaller projects (such as renewable energy development projects). This often inhibits or prevents development of these projects.

DISCUSSION:

Permitting costs and the number of required permits were identified as some of the main impediments to renewable energy development at the 1989 Enhancing Renewable Energy Development in Hawaii Workshop.

Any project in Hawaii involving the use of land or which may have significant environmental or social impact faces a complex and lengthy process to obtain all the necessary government permits and approvals. This serves as a barrier to renewable projects as well.

For example, the Hawaii Integrated Energy Policy Report of 1991 ("HEP") concluded that "there is a need to improve the efficiency of state permitting and approvals required for siting and development of energy facilities." The report recommended, as a near- to mid-term objective, the "create[ion of] a new energy agency ... to improve the efficiency of facilitating the permit process without compromising environmental and other standards."

Permit process facilitation was identified as one of the best ways to facilitate renewable energy development, and one of the consensus pieces of proposed legislation (introduced during the Seventeenth Legislature, 1994, as S.B. No. 2101 and H.B. No. 2634, both entitled, "Making an Appropriation to Implement the Permit Process Facilitation Act").

In 1977, central coordinating agencies were established in each of the four counties. Operation of these central coordinating agencies improved the permit approval process by providing a central source of information on county permit and approval requirements. Based on county experience, improvements can be made in state permit and approval processes. There are opportunities to further facilitate the regulatory process for projects that require permits and approvals from different levels of government.

The Thirteenth State Legislature, Regular Session of 1985, enacted Act 237 (H.B. No. 206), the "Permit Process Facilitation Act of 1985". The purpose of this Act was to authorize the Department of Planning and Economic Development (now the Department of Business, Economic Development & Tourism) to facilitate, expedite, and coordinate state agency and inter-governmental permit processes through a consolidated application procedure, through information services, and through efforts to streamline the permit process.

Act 237 also authorize and established procedures by which federal, state, and county agencies and authorities may consolidate their review and action on permit applications in the State. These procedures were mandatory for state agencies, and voluntary for federal and county agencies.

Hawaii Revised Statutes, Chapter 201, Section 62, Consolidated Application Process, sets forth the consolidated application procedure. Section 63, Information Services, provides guidance regarding the provision of information services. Section 64, Streamlining Activities, provides recommendations regarding the streamlining of the permitting process. And, Section 61, Reporting, sets forth requirements for reporting on a biennial basis.

The actual costs and benefits of permit process facilitation and the status of the DBEDT's efforts are not adequately known at this time.

STRATEGIES:

Possible strategies to streamline and simplify licensing and permitting process include, but are not limited to:

Strategy 3.a.1

Amend HRS §201-64 to make implementation of those elements of the Permit Process Facilitation Act of 1985 which have not yet been implemented mandatory rather than discretionary. Determine resource requirement and provide additional funding to conduct any activities which cannot be accomplished through use of existing resources.

DISCUSSION:

The original Permit Process Facilitation Act provided DBEDT with the option, rather than the requirement, of implementing HRS §201-64.

VEHICLE: Legislative amendment

AGENCY: DBEDT, (or OSP) with the assistance of and coordination with affected state agencies, county central coordinating agencies, federal agencies, and members of the public, and legislature

POSITION OF THE PARTIES:

PROPOSERS: d, r, p, n, krl, i, ers, z

OPPONENTS:

NO POSITION: heco, w, ke, ki, h, m, ca

Strategy 3.a.2

Fund and implement the Consolidated Application Permitting process and the Permit Facilitation Act of 1985, amended in 1987.

DISCUSSION:

The permit process facilitation was identified as one of the best ways to facilitate renewable energy development, and was one of the consensus pieces of proposed legislation (introduced during the Seventeenth Legislature, 1994, as S.B. No. 2101 and H.B. No. 2634, both entitled, "Making an Appropriation to Implement the Permit Process Facilitation Act").

This proposed legislation provided for funding implementation of permit process facilitation through a combination of general funds and an increase in current permit fees. Even with a surcharge on permitting fees, the real costs of permitting may actually decrease because of the benefits of the consolidated and streamlined process owing to the need for less time and effort by all parties in the permitting process.

The Permit Process Facilitation Act of 1985, amended in 1987, authorized the Department of Planning and Economic Development (now the Department of Business, Economic Development, and Tourism) to facilitate, expedite, and coordinate state agency and inter-governmental permit processes through a consolidated application procedure, through information services, and through efforts to streamline the permit process. However, this authorization has become an unfunded legislative mandate.

DBEDT has implemented, to some degree, the information services portion of the Permit Process Facilitation Act of 1985. A 1993 Energy and Environmental Summit bill requested an appropriation for this purpose. The bill did not pass. A subsequent Concurrent Resolution asked DBEDT to analyze and report the costs of implementation. Proponents maintain that it may be possible to conduct much of the required implementation work using existing DBEDT resources, but

some additional funding may be required. This issue remains to be resolved.

Opponents maintain that it has not been specifically determined (1) what improvements in the permitting process will be accomplished by the implementation of the Permit Facilitation Act of 1985 (amended in 1987), been specifically determined (2) whether DBEDT has adequate existing staff and funding to accomplish the task of coordinating the inter-governmental permitting process, or (3) what level of funding is required.

VEHICLE: Administration's budget request and appropriations from State Legislature to conduct any activities which cannot be accomplished through use of existing resources.

AGENCY: Legislature; administration (DBEDT; DLNR; OSP; etc.)

POSITION OF THE PARTIES:

PROPOSERS: heco, ke, d, r, n, z

OPPOSERS:

NO POSITION: p, w, i, krl, ers, m, h, ki, ca

Strategy 3.a.3

Create a Hawaii Energy Commission (similar to the one in California, and the establishment of which has been proposed several times over the last few years) to facilitate renewable energy development (e.g., through: one-stop project siting and permitting; use of plenary jurisdiction; opening and expanding the public participation process; expedited decision-making; integrated planning at the state level; overseeing of research, development and demonstration programs; and aggressive implementation of PURPA).

DISCUSSION:

This strategy did not have consensus.

The 1993 Energy and Environmental Summit Process was convened by the legislature on October 8, 1993, to identify issues and build broad-based support that will move Hawaii forward in the areas of energy and the environment. A number of bills were developed for consideration by the Seventeenth Legislature, 1994. The establishment of a Hawaii Energy Commission was the objective of one of the pieces of legislation developed during the Summit.

The Hawaii Integrated Energy Policy [HEP] report of 1991 concluded that "... there is a need to improve the efficiency of State permitting and approvals required for siting and development of energy facilities" and recommended the "creat[ion of] a new energy agency ... to improve the efficiency of and facilitating the permit process without compromising environmental and other standards."

In January 1995, a Legislative Reference Bureau ("LRB") report entitled "Establishing an Energy Commission: A Feasibility Study" recommended that the establishment of an Energy Commission modeled upon the California Energy Commission is not necessary at this time. The LRB report was conducted in response to Senate Concurrent Resolution No. 62, S.D. 1 (1994). The LRB recommendation is based on three reasons. First, the Energy Commission would likely add yet another bureaucracy and new regulatory or approval requirements to government and result in duplicative effort and regulation. Second, the present State budget crisis

imposes financial constraints, and creation of an Energy Commission would be expensive and counterproductive. Finally, the Energy Division's completion of projects intended to provide recommendations to achieve the State's energy objectives is at hand, and the foundation achieved by action on these recommendations will provide Hawaii with vision toward dependable and efficient energy systems and increased energy self-sufficiency.

In California, the State administration has proposed to eliminate the California Energy Commission and to transfer most of the Energy Commission functions to the California Public Utilities Commission and other state agencies. (The status of this action is not known.)

Proponents maintain that a state energy commission which has the capability to do certain energy-related activities not currently under the purview of a single agency is expected to reduce the complex and lengthy permitting process. These activities include: one-stop project siting and permitting; use of plenary jurisdiction; opening and expanding the public participation process; expedited decision-making; integrated planning at the state level; overseeing of research, development and demonstration programs; and aggressive implementation of PURPA. California has established this type of agency and the proposed "Hawaii Energy Commission" could be patterned after the California Energy Commission.

Opponents maintain that an Energy Commission should not be established in Hawaii because:

- 1) there would be a significant overlap between the responsibilities of the proposed Energy Commission and the Hawaii Public Utilities Commission that could easily result in operational inefficiencies and conflicting directives to electric utilities, and in effect, be a set-back to development of alternate energy development in the State;

- 2) the "commission" form of government is not appropriate to encourage the development of renewable energy resources. A commission is most appropriate where there are issues to be adjudicated. To encourage the development of renewable energy resources, a "regular" administrative agency would be better suited to successful planning and policy development;
- 3) considering the State's current financial crisis, the funds required for creation and maintenance of a proposed Energy Commission composed of at least 8 members and other staff members as necessary would be better devoted to other existing State agencies.
- 4) the counties feel that they are capable of handling the functions of several state agencies (e.g., Land Use Commission, Water Commission, and Office of State Planning) and the establishment of an Energy Commission is not consistent with the counties' position that more planning issues be resolved at the local level; and
- 5) creation of another layer of bureaucracy is not desirable and would not enhance the development of renewables.

VEHICLE: Legislation patterned after that developed by the 1993 Energy and Environmental Summit.

AGENCY: Legislature; administration (DLNR; OSP; etc.)

POSITION OF THE PARTIES:

PROPOSERS: r, n, i, z

OPPONENTS: heco, d, ki, m, h

NO POSITION: ke, p, w, krl, ers, ca

Strategy 3.a.4

Consider reducing the number of agencies with permitting authority over RE projects.

DISCUSSION:

Examples include the Geothermal and Cable System Development Permitting Act of 1988, HRS, Chapter 196 D; and the Creation of Geothermal Resource Subzones, pursuant to HRS 205-5.1, 5.2.

A large number of federal, state, and county agencies and authorities have jurisdiction and may grant or deny their approval and issue or withhold permits for a variety of projects in the State.

Affected agencies may disagree as to the requirements to be imposed on each applicant, hearings and data requirements may overlap or duplicate each other, and some agencies may prefer not to act until others take action first.

To facilitate the orderly development of geothermal energy in Hawaii, Act 296, Session Laws of Hawaii 1983, was signed into law. Thus, there is an example of one possible approach for permit process facilitation which could be applied to other renewable energy resources.

VEHICLE: DBEDT (or OSP) to organize a working group to identify specific examples.

AGENCY: OSP, DBEDT, utilities, RE developers, permitting agencies, County, governments and State Legislature.

POSITION OF THE PARTIES:

PROPONENTS: heco, ke, d, r, n, z

OPPONENTS:

NO POSITION: p, krl, i, w, ki, m, h, ca, ers

Strategy 3.a.5

Provide additional resources in the forms of funding, personnel, and training to permitting agencies to allow more timely permit processing.

DISCUSSION:

Proponents maintain that the existing permitting process is complex and lengthy and requires a large number of trained personnel in the affected agencies to make the process operate efficiently. Additional training and personnel would improve the process.

Opponents maintain that streamlining the permitting process, not additional funding or personnel, is the key to solving the complex and lengthy permitting process. If the process were streamlined and existing personnel properly trained, the process would proceed at a faster pace. In many instances, interagency cooperation by sharing personnel and expertise would do much to speed the review process. Instead of each agency working independently, more work would be accomplished with teamwork. Budget shortfalls facing the state will not permit more funding and additional personnel.

VEHICLE: Administration's budget request and appropriations from State Legislature.

AGENCY: Legislature; administration (DBEDT; DLNR; OSP; etc.)

POSITION OF THE PARTIES:

PROPOSERS: heco, ke, r, n, z

OPPONENTS: ki, m, h

NO POSITION: d, p, i, krl, w, ers, ca

Strategy 3.a.6

Consider the establishment of renewable energy subzones (or "energy resource areas") (and "RE Enterprise Zones"), which are areas compatible with renewable energy resource availability and land-use compatibility, and long-range county plans.

DISCUSSION:

DBEDT's Renewable Energy Resource Assessment supplemented with Land Use designation information to identify areas that could be designated as RE development subzones. (Where appropriate these subzones should also be designated as "RE Enterprise Zones".)

Proponents maintain that designating Renewable Energy Resource Subzones or Energy Resource Areas in long-range county plans would be beneficial. Additionally, long-range energy land use planning could help to facilitate the permitting process by providing communities the opportunity to participate early in the process via adoption hearings for the long-range plans. Further the designation of Energy Resource Areas would provide advance warning to potential buyers of property, thus helping to address the NIMBY syndrome.

Establishment of renewable energy subzones possibly associated with certain tax or other incentives, as well as designation of these sites as Renewable Energy Enterprise Zones may speed permitting of projects and ensure land access for renewable energy developers.

Opponents maintain that a term other than "subzone" is preferred (e.g., "energy resource areas") because implicit with the use of a subzone is the need to formulate complex rules and regulations. They further contend that the need for new regulatory subzones to facilitate the development of biomass, solar, and wind energy resources has not been demonstrated. They do, however, recognize the permitting benefits from designating areas of potential energy development in long-range county plans.

VEHICLE: A DBEDT-organized Working Group could be established. DBEDT would administer the new statute. The Counties would participate in the designation of the RE Development Sub-zones and RE Enterprise Zones within their respective jurisdictions. These efforts could be incorporated into County long-range planning programs.

AGENCY: Counties with support from DBEDT; Utilities; developers; general public.

POSITION OF THE PARTIES:

PROPOSERS: heco, d, r, n, z

OPPOSERS: ki, m, h

NO POSITION: p, i, krl, w, ers, ke, ca

Strategy 3.a.7

Consider the establishment of special rules and permitting for small scale projects.

DISCUSSION:

Obtaining permits for a project can be very costly. Dozens of different permits may be required, and these costs often represent a much greater proportion of total project costs for smaller projects (such as renewable energy development projects). This often inhibits or prevents development of these projects.

It may be possible to waive or simplify the permitting requirements and to develop special rules for renewable energy projects of a given size (e.g., 25-100 kW, depending on the type of resource) provided that it can be established that such projects do not have a significant negative impact on the environment.

VEHICLE: DBEDT led working group to identify specific permitting requirements for which it would be appropriate to add renewable energy project exemptions by statute or rule.

AGENCY: OSP, DBEDT, utilities, RE developers, permitting agencies, and State Legislature.

POSITION OF THE PARTIES:

PROPOSERS: d, r, ki, m, h, n, z, heco

OPPOSERS: ke

NO POSITION: w, p, i, krl, ers, ca

Barrier 3.b**Limited land availability****DEFINITION:**

Land for the development of renewable resources is limited by competing uses.

BACKGROUND:

Hawaii is blessed with numerous renewable energy resources. The land is substantially limited by competing uses such as tourism, agriculture and population growth. Available land is further limited by existing zoning, recalcitrant private landowners, and the difficulty associated with acquiring State lands.

There is consensus that limited land availability in Hawaii is a barrier to the development of renewable resources.

STRATEGIES:

Possible strategies include, but are not limited to:

Strategy 3.b.1 Consider the establishment of renewable subzones.

DISCUSSION:

Refer to previous discussion of this Strategy 3.a.6.

POSITION OF THE PARTIES:

PROPOSERS: heco, d, r, n, z

OPPOSERS: ki, m, h

NO POSITION: p, i, krl, w, ers, ke, ca

Strategy 3.b.2

Develop a renewable energy bidding process for access to State lands.

DISCUSSION:

Refer to previous discussion of this Strategy 3.b.1.

POSITION OF THE PARTIES:

PROPONENTS: d, r, kl, m, h, n, z

OPPONENTS:

NO POSITION: heco, ke, w, p, i, krl, ers, ca

Barrier 3.c

Developers may not be granted access to public lands for renewable energy resources.

DEFINITION:

Developers attempting to develop projects on public lands have frequently done much of the preliminary design and permitting work only to subsequently discover that they have had to bid against other interested developers for access to renewable energy resources.

DISCUSSION:

Several renewable energy project developers (hydroelectric and wind) have tried to develop projects on public lands and/or using publicly-owned renewable energy resources but have subsequently found that they were not guaranteed access.

This has occurred with hydroelectric project developers who spent large amounts of money to work their way to the siting and permitting process (including environmental impact assessments) only to find out that they would have to compete with others for the rights to use the water.

Wind developers have negotiated extensively with the state for access to state lands and later have found that a bidding process might be required.

STRATEGIES

Possible strategies include, but are not limited to:

Strategy 3.c.1 **Develop a renewable energy bidding process for access to State lands.**

DISCUSSION:

Developers could acquire leases and/or water rights through early contract negotiations. Developers selected would be required to develop a renewable energy project within a specified time frame. Other performance conditions could be set to ensure completion of the project.

Implementing a bidding process to assure access and/or water rights, but with the state protected by project development contract performance conditions, could help assure renewable energy developers that they will have their required access to the project land, while protecting the State from financial loss in the event of the contractor's failure to fulfill the performance conditions of their project development contract with the State.

There have been instances reported in the past that, for example, hydroelectric developers have worked for years and invested large amounts of money to develop a particular project only to have water rights not awarded to them due to interest group opposition or have been awarded to other interested parties. Further, the current bidding process seems to penalize the initial developer who "pioneers" their way through the permitting and lease negotiation process, only to lose the lease of state lands to a competing developer after the investment of large amounts of time and money.

VEHICLE: Public/private working group.

AGENCY: DLNR; DBEDT, Utilities Developers; Government agencies; Public interest groups; interested members of the general public.

POSITION OF THE PARTIES:

PROPOSERS: d, r, ki, m, h, n

OPPOSERS:

NO POSITION: heco, ke, w, p, i, krl, ers, ca

Strategy 3.c.2

Enact legislation to ensure "solar access" for project term.

DISCUSSION:

Proponents maintain that landowners have a right to receive sunlight from directly above their property but not necessarily from across adjacent property. That light can be blocked by their neighbors with impunity. Light from across neighboring land is necessary for efficient operation of solar energy systems. The challenge to legislatures is to encourage private and public remedies of this disparity between what the law provides and what the technology requires.

Opponents maintain that the term "solar access" is too vague to support this strategy without further details, and that an analysis of the impact of such a requirement on the development of adjoining property should be conducted before such legislation is enacted.

Opponents also maintain that this strategy is applicable only to the City and County of Honolulu (Oahu). The nature of development on the neighbor islands does not warrant the consideration of a solar access ordinance at this time.

VEHICLE: A study should first be made, perhaps by the Hawaii Solar Energy Association ("HSEA"), to determine the magnitude and significance of this potential problem. If it turns out to be a significant problem, HSEA should then pursue enabling legislation and changes in county regulations.

The least that a legislature should do is specifically authorize local governments to take access to sunlight into consideration when designing their various land use regulations, including the comprehensive plan. County governments can then incorporate these land use regulations into their zoning ordinances.

AGENCY: Legislature; County governments; HSEA.

POSITION OF THE PARTIES:

PROPOSERS: d, r, n, i

OPPOSERS:

NO POSITION: w, m, ki, h, p, krl, ers, ca, ke, heco

Barrier 3.d**NIMBY syndrome for siting RE projects.****DEFINITION:**

The "not in my backyard" ("NIMBY") syndrome refers to the reluctance of many individuals to have an energy, or other type, facility sited close to their residences, places of work, or recreational areas.

DISCUSSION:

The NIMBY syndrome is a potential barrier to renewable energy projects. Opposition from the neighbors of potential energy projects is not limited to fossil fuel generation as evidenced by the experience with geothermal energy on the Big Island. Virtually any significant project faces the potential of opposition on a myriad of possible grounds plus local opposition to project visibility, audibility, traffic, environmental impacts, social and cultural impacts, air quality impacts, etc.

STRATEGIES:

Possible strategies include, but are not limited to:

Strategy 3.d.1

The general public and public advocates need to be more involved in the energy planning and decision-making process and as early and thoroughly in the process as feasible.

DISCUSSION:

Proponents maintain that the general public has a right to be aware of and to be involved in the energy planning and decision-making process. Failure to inform the public and to solicit their participation often creates additional problems for project developers (e.g., delays, additional costs, opposition, etc.). (See also comments on public participation in Strategy 3.a.6)

Opponents maintain that there has been no showing that the public participation, public information and/or advisory group provisions in the PUC's IRP Framework (§III.E.) are inadequate or that the electric utilities' implementation of these requirements in their IRP processes was in any way inadequate, and question the efficacy of this strategy in addressing the NIMBY syndrome for siting RE projects.

VEHICLE: The utilities should actively recruit neighborhood groups and advocacy groups into IRP advisory groups. There should be greater publicity about IRP advisory groups and meetings. IRP documents should be made available for public review, perhaps through the State Library System.

AGENCY: Utilities; PUC; DBEDT; DCCA; DLNR

POSITION OF THE PARTIES:

PROPOSERS: ke, d, r, ki, m, h, n, z

OPPONENTS:

NO POSITION: p, i, krl, w, heco, ers, ca

Strategy 3.d.2

Educate the public about the net benefits of renewable energy projects and conservation.

DISCUSSION:

In order to make informed decisions about competing energy resources, the public needs to be knowledgeable about the comparative environmental effects of fossil fuels, renewable energy, and energy efficiency and conservation.

VEHICLE: Various RE public information media could be used.

AGENCY: PUC, DBEDT, Consumer Advocate, utilities and RE developers.

POSITION OF THE PARTIES:

PROPOSERS: heco, ke, d, r, ki, m, h, n, z

OPPOSERS:

NO POSITION: p, i, krl, w, ers, ca

Strategy 3.d.3

Location of projects with significant potential impacts on their neighbors as remotely as possible.

DISCUSSION:

Project impacts will be minimized if projects are located as far as possible from people (and from other life forms that might be adversely affected).

VEHICLE: DBEDT to organize a working group to pattern this after work conducted by DLNR for creation of Geothermal Resource Subzones. (See also Strategy 3.a.4.)

AGENCY: OSP; DBEDT; DLNR; Utilities; Developers; Permitting agencies; Counties; and State Legislature.

POSITION OF THE PARTIES:

PROPONENTS: heco, ke, d, r, ki, m, h, n, z

OPPONENTS:

NO POSITION: p, i, krl, w, n, ca

Strategy 3.d.4

Financial assistance should be provided to participants in Advisory Groups. At least occasional Advisory Group meetings should be held during non-business hours to allow wider participation by the employed public. These meetings could supplement the "regular" Advisory Group's activities at intermediate points during the IRP process.

DISCUSSION:

It is often costly for individuals to participate in utility advisory groups, particularly if these meetings involve inter-island travel. The IRP Framework provides financial assistance for non-governmental parties but not governmental parties. Potential participants may also be unable to participate in these meeting during normal work hours. Costs and work conflicts could minimize or prevent the participation of interested and knowledgeable individuals in various advisory group meetings.

Proponents maintain that financial assistance should be extended to government agencies to cover travel expenses in instances when Advisory Group meetings are located off the island of the utility's main office. Agencies are burdened with the additional travel expenses to represent their constituents off-island. This is becoming a problem in the agencies' tight fiscal environments.

Opponents maintain that there has been no showing that the public participation, public information and/or advisory group provisions in the PUC's IRP Framework (§III.E.) are inadequate or that the electric utilities' implementation of these requirements in their IRP processes was in any way inadequate, and question the efficacy of this strategy in addressing the NIMBY syndrome for siting RE projects.

VEHICLE: Some portion of advisory group meetings could be held during non-business hours (i.e., evenings and weekends). For those meetings which cannot be held during non-business hours, limited financial assistance could be made available to allow additional participation. PUC rule-making to allow financial assistance to government agencies.

AGENCY: PUC; DCCA; Utilities; and State Legislature.

POSITION OF THE PARTIES:

PROPOSERS: ki, m, h, p, krl, i, ers, r, z

OPPOSERS: heco, ke

NO POSITION: d, w, n, ca

Barrier 3.e**Potential negative environmental and social impacts of RE development projects****DEFINITION:**

There may exist perceptions that certain RE development projects will have negative environmental and social impacts. In some cases, this is true, and they may range from minor to severe. These impacts generally depend on the proposed site of the proposed RE development project.

DISCUSSION:

Unfortunately, these impacts are sometimes either over- or understated. In which case, the public may become distrustful of the development of renewable energy projects in general. The previously envisioned development of large-scale geothermal energy on the Big Island for possible export to Oahu is an example of a proposed project which had serious social impacts, as evidenced by strident opposition to it. Public education in the preliminary planning stage of proposed projects may help to reduce the degree of concern and mitigate the opposition to RE projects.

STRATEGY:**Strategy 3.e.1**

Design and conduct public education programs to be initiated during the preliminary planning of RE projects which explain the actual expected environmental and social impacts of the project and provide an opportunity to the local community to provide additional information for consideration by project developers and government.

VEHICLE: Public discussion workshops should be convened to discuss the potential negative environmental and social impacts of fossil fuels and renewable energy technologies. Discussion should focus on the relative impacts and ways to mitigate these impacts. Discourse between the public and developers should be emphasized.

AGENCY: RE Developers; Utilities, appropriate Government Agencies; and general public.

POSITION OF THE PARTIES:

PROPOSERS: d, ki, m, h, n, r, ke, z

OPPOSERS:

NO POSITION: p, i, krl, w, heco, ers, ca